

Covid-19

Local authority travel and transport data

Weekly digest



Week Commencing

13th July 2020

Local authority travel and transport data weekly digest

Introduction

Since the imposition of travel restrictions designed to help dramatically reduce the spread of Covid-19, the Transport Technology Forum has led the collation of transport data from local authorities into information used to understand changes in travel behaviour.

Authorities from cities, towns and counties across England are sharing urban traffic control and automated traffic counter data from the roadside, as well as information on cycling and car parks. Industry has also supplied video analytics and floating vehicle data patterns. This sits alongside data the Department receives about rail and air, public transport, freight and maritime to summarise how, where and when people and goods are moving around the country.

The Transport Technology Forum is now able to publish outcomes from this data set for interested parties, not least those bodies who went above and beyond the call to share their data with us.

About the Forum

This document has been prepared by the Transport Technology Forum as part of its remit to drive more effective and efficient management of existing and new road networks, as a key national opportunity before, during and after the current Covid-19 emergency.

Road transport will remain a key pillar of how people and goods move across the nation, not just on strategic roads. Improving road travel through technology is a core aim of the Forum.

The Forum promotes a collaborative culture to open up the opportunity and address the caution which has historically impeded efficiency and innovation.

About this Report

The report provides an ongoing snapshot of travel, summarising weekly, daily and hourly changes based on information shared by:

- Traffic – 29 data providers, geographically covering approximately 107 local authority districts.
- Cycling – 16 data providers, geographically covering approximately 84 local authority districts including nationwide canal and river paths.

This provides an overview of how public behaviour is changing as a result of restrictions being eased, whether travel habits are returning to normal or what new patterns are being experienced. Local Authorities can benefit by being able to compare what is happening in their areas with the national picture, allowing local and national comparisons to be drawn.

Highlights summary

The following provides a high-level summary of the key findings within the data:

Traffic Flow

- Traffic for the week commencing 6th July saw a further increase in flows of approximately 4.5 percentage points compared to the previous week, bringing the overall traffic count average for the week to a reduction of 17% compared to the baseline (first week in February 2020).
- Following the reopening of pubs, restaurants, hairdressers and other services on Saturday 4th of July, hourly traffic volumes observed a return to pre-lockdown levels between the peaks and in the PM (Figure 4). Traffic volumes on Sunday the 12th July were only 11% reduced from the baseline, the highest daily traffic level since lockdown began.
- Analysis of vehicle classification data (where available) shows that bus and coach volumes returned to pre-lockdown levels during the w/c 6th July. Car flows are now the furthest from returning to pre-lockdown levels of all vehicle classes.
- HGV/LGV volumes increased up to 20% above pre-lockdown levels w/c 6th July.

Cycling

- The week commencing 6th July experienced an overall increase in average cycling volumes of 13 percentage points in comparison to the previous week. This was largely driven by cycling levels on Monday, Tuesday, Friday and Saturday.
- Cycling flows on Wednesday 8th July were 7% below baseline levels. It is unclear at this point if this was due to adverse weather conditions.
- While cycling trends throughout June had been a week on week decrease in both weekend and weekday cycling levels, volumes since the final week of June have shown a new trend with weekday levels decreasing and weekend levels increasing (Figure 6).
- Figure 8 demonstrates a significant shift in post-lockdown cycling across each hour of the day, showing a pronounced AM and PM Peak followed by a trough between the peaks. Previous lockdown weeks have seen high volumes of cycling between the peaks.

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Figure 1 – Key Traffic Flow Dashboard Measures

Overall Daily Traffic Flow Change Compared to Baseline (01-07 Feb 2020)								
Week	1. Monday	2. Tuesday	3. Wednesday	4. Thursday	5. Friday	6. Saturday	7. Sunday	Total
06/07/2020	🔻 -21.09%	🔻 -16.61%	🔻 -18.22%	🔻 -19.54%	🔻 -17.44%	🔻 -14.67%	🔻 -11.17%	-17.31%
29/06/2020	🔻 -29.87%	🔻 -24.41%	🔻 -20.62%	🔻 -23.08%	🔻 -20.44%	🔻 -22.35%	🔻 -19.34%	-21.92%
22/06/2020	🔻 -25.51%	🔻 -25.84%	🔻 -22.02%	🔻 -27.13%	🔻 -21.55%	🔻 -25.05%	🔻 -22.20%	-24.06%
15/06/2020	🔻 -28.08%	🔻 -31.25%	🔻 -29.86%	🔻 -34.53%	🔻 -28.63%	🔻 -25.46%	🔻 -25.17%	-29.35%
08/06/2020	🔻 -30.55%	🔻 -28.67%	🔻 -32.72%	🔻 -34.88%	🔻 -34.91%	🔻 -33.36%	🔻 -31.42%	-32.56%
01/06/2020	🔻 -28.43%	🔻 -28.25%	🔻 -32.05%	🔻 -34.22%	🔻 -30.47%	🔻 -37.00%	🔻 -34.80%	-32.00%
25/05/2020	🔻 -51.39%	🔻 -33.61%	🔻 -33.36%	🔻 -33.49%	🔻 -29.52%	🔻 -31.03%	🔻 -27.81%	-33.30%
Total	-29.97%	-30.47%	-29.62%	-31.72%	-29.78%	-30.46%	-30.63%	-30.30%

Figure 1: Key dashboard figures showing change in average daily traffic volumes compared to the baseline (first week of February 2020)

Figure 2 – Key Cycling Dashboard Measures

Overall Daily Cycling Change Compared to Baseline (01-07 Feb 2020)								
Week	1. Monday	2. Tuesday	3. Wednesday	4. Thursday	5. Friday	6. Saturday	7. Sunday	Total
06/07/2020	📈 71.08%	📈 55.64%	🔻 -7.09%	📈 8.67%	📈 52.39%	📈 127.62%	📈 150.00%	65.14%
29/06/2020	📈 20.60%	📈 29.21%	📈 43.48%	📈 46.93%	📈 17.93%	📈 71.11%	📈 125.00%	52.11%
22/06/2020	📈 43.45%	📈 100.00%	📈 60.23%	📈 29.27%	📈 61.67%	📈 25.93%	📈 116.07%	58.54%
15/06/2020	📈 78.04%	📈 61.29%	📈 29.11%	🔻 -25.93%	📈 15.15%	📈 155.59%	📈 139.94%	51.43%
08/06/2020	📈 104.44%	📈 135.42%	📈 22.73%	📈 18.87%	📈 1.76%	📈 177.78%	📈 175.00%	76.18%
01/06/2020	📈 81.90%	📈 88.21%	🔻 -7.08%	📈 47.30%	📈 47.23%	📈 70.27%	📈 205.71%	65.45%
25/05/2020	📈 97.72%	📈 91.99%	📈 69.93%	📈 81.20%	📈 88.76%	📈 200.00%	📈 260.00%	132.38%
Total	12.66%	12.50%	0.00%	3.57%	11.11%	52.94%	73.68%	17.84%

Figure 2: Key dashboard figures showing change in average daily cycle volumes compared to the baseline (first week of February 2020)

Figure 3 – Daily average traffic flow change from baseline

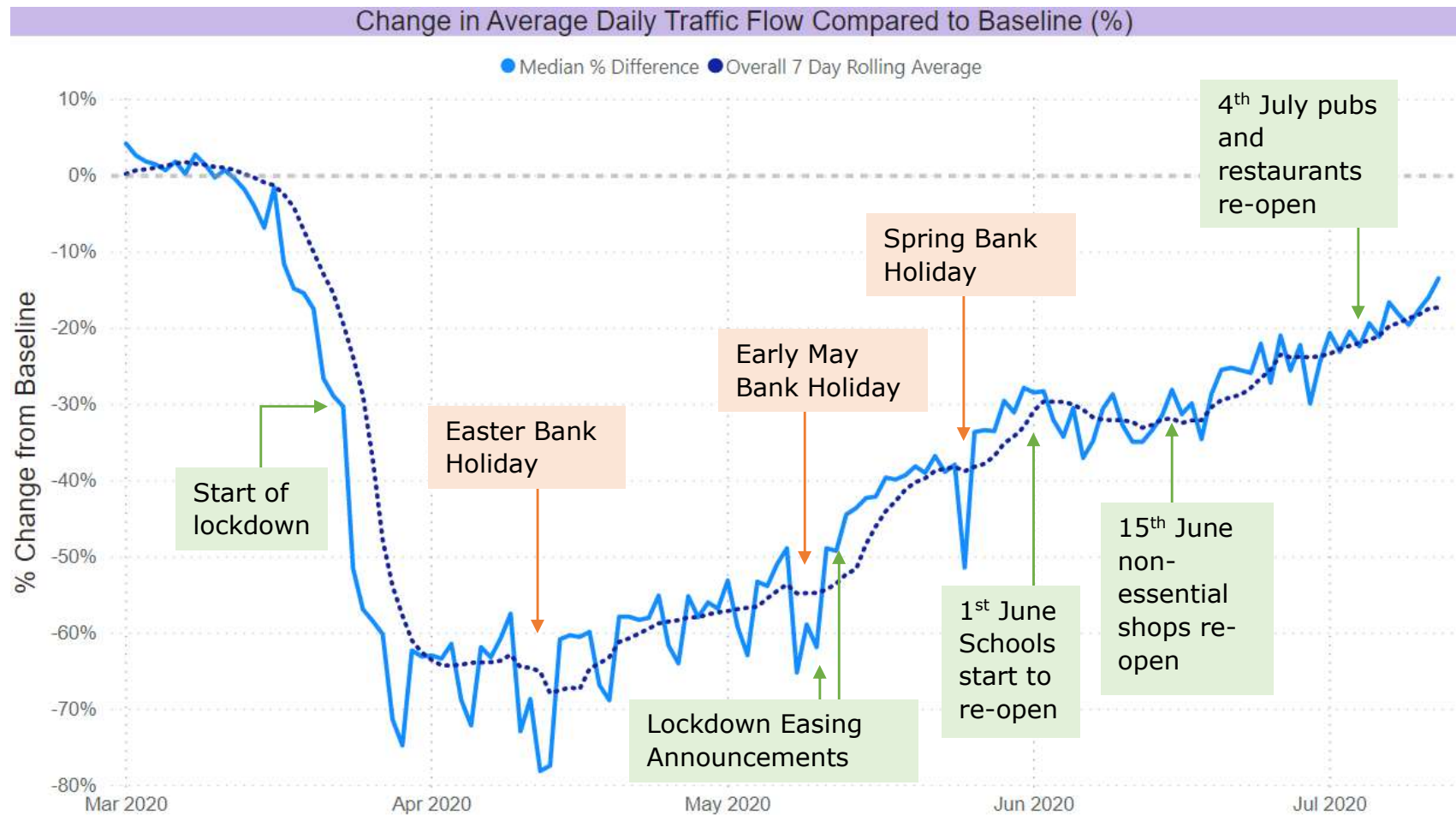


Figure 3: Change in average daily traffic volumes since 01st March across all sources compared to the baseline (first week of February 2020)

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Figure 4 – Hourly traffic flow comparison per week

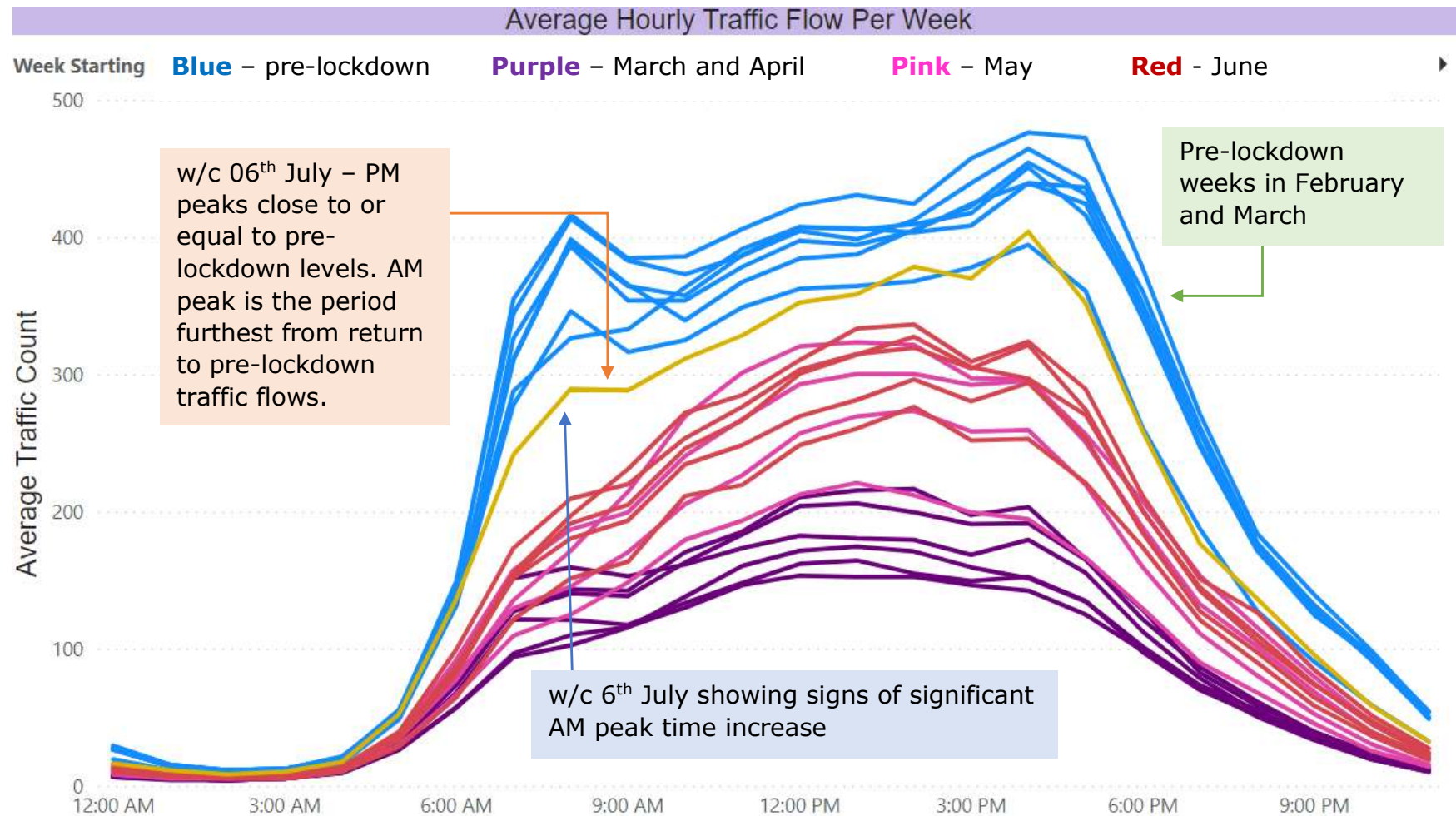


Figure 4: Change in average hourly traffic volumes per week since 1st full week in February across all sources with latest week highlighted.

Figure 5 – Change in journeys by vehicle class

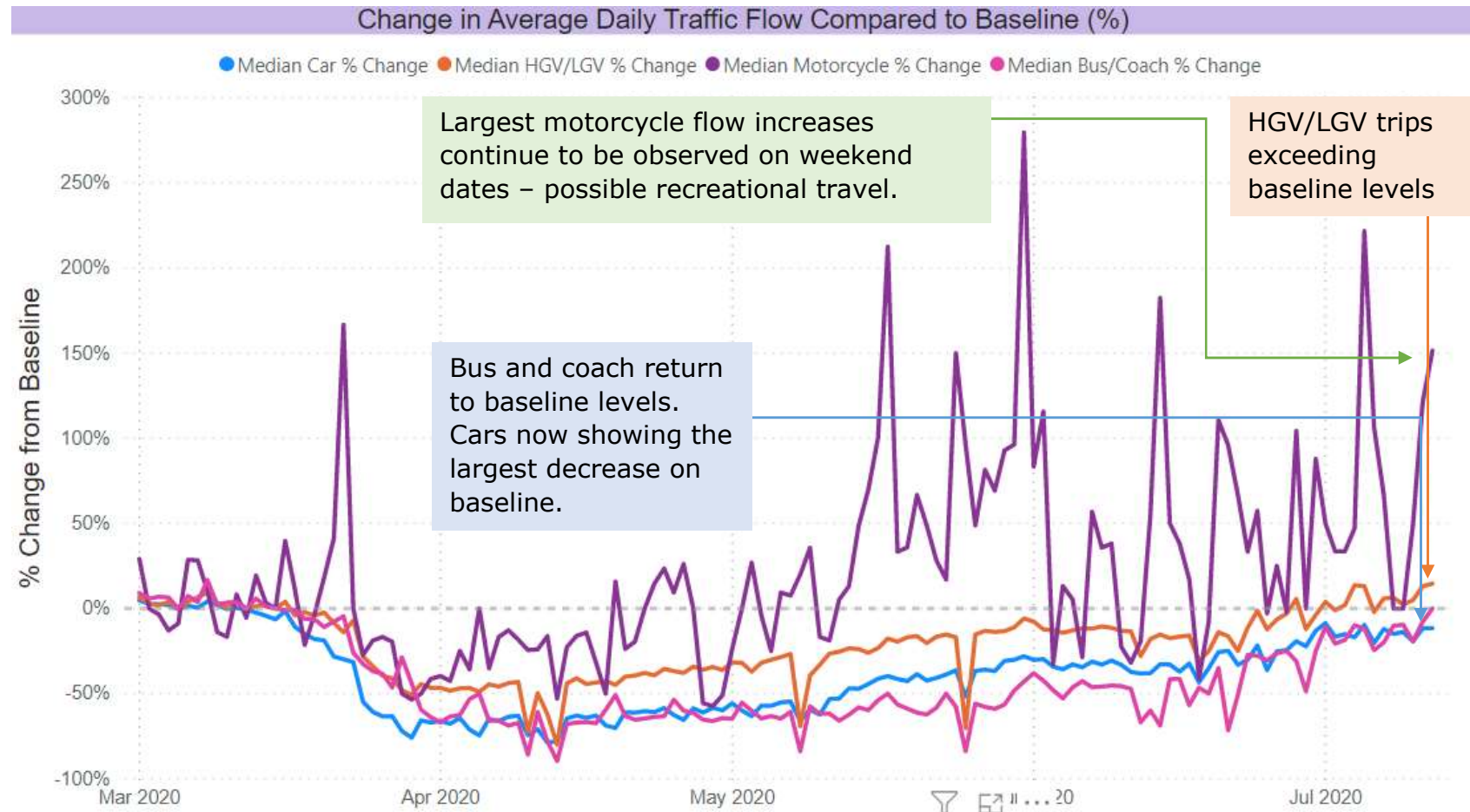


Figure 5: Change in average vehicle trips by vehicles class where available in the source dataset (note this data is measured at sensor level so sources with large numbers of sensors will have a greater contribution to the average count)

Figure 6 – Daily average cycling change from baseline

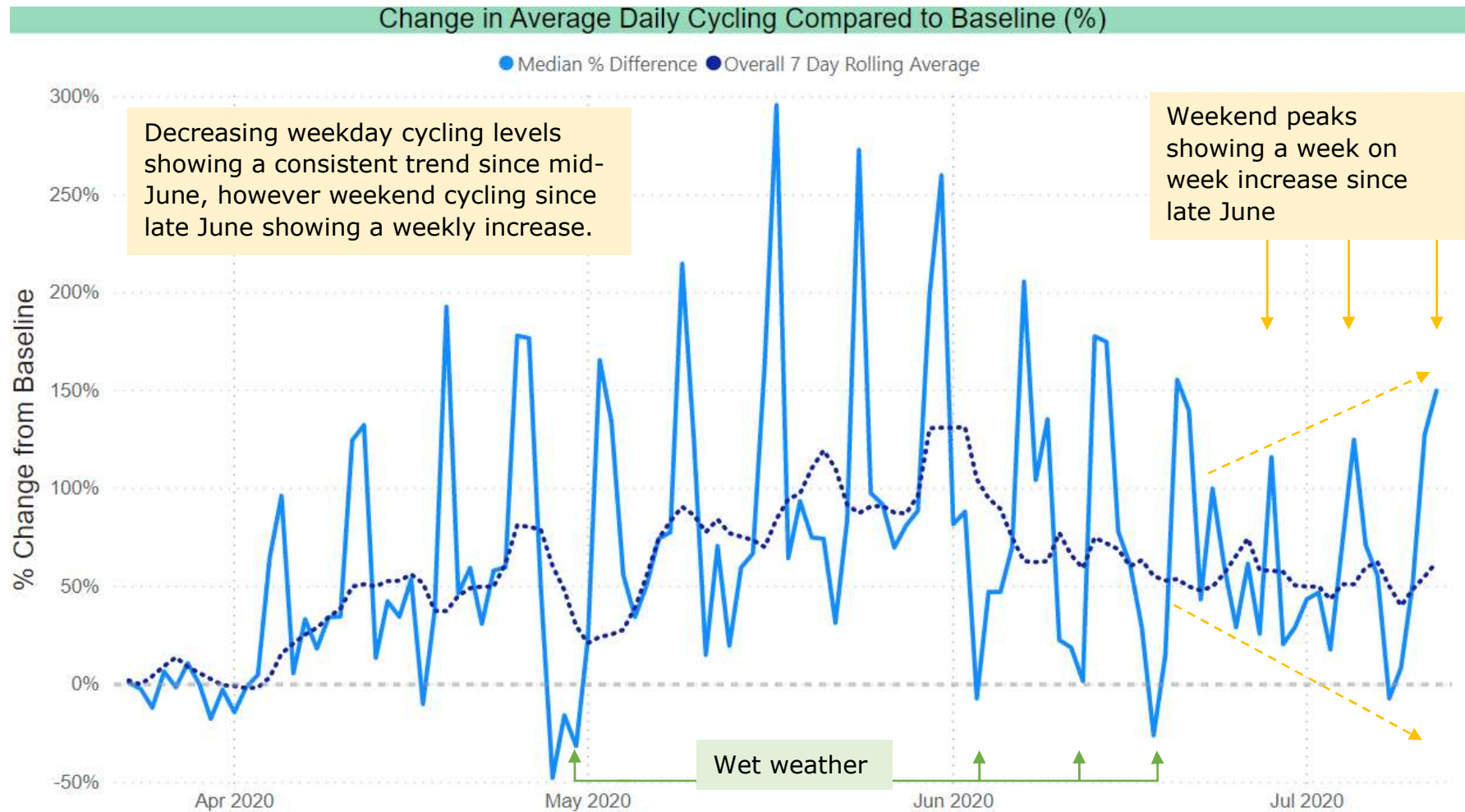


Figure 6: Change in average daily cycling volumes since 23rd March (start of lockdown) across all sources compared to the baseline (first week of February 2020)

Figure 7 – Change in daily cycling volumes compared to rainfall (Met Office)

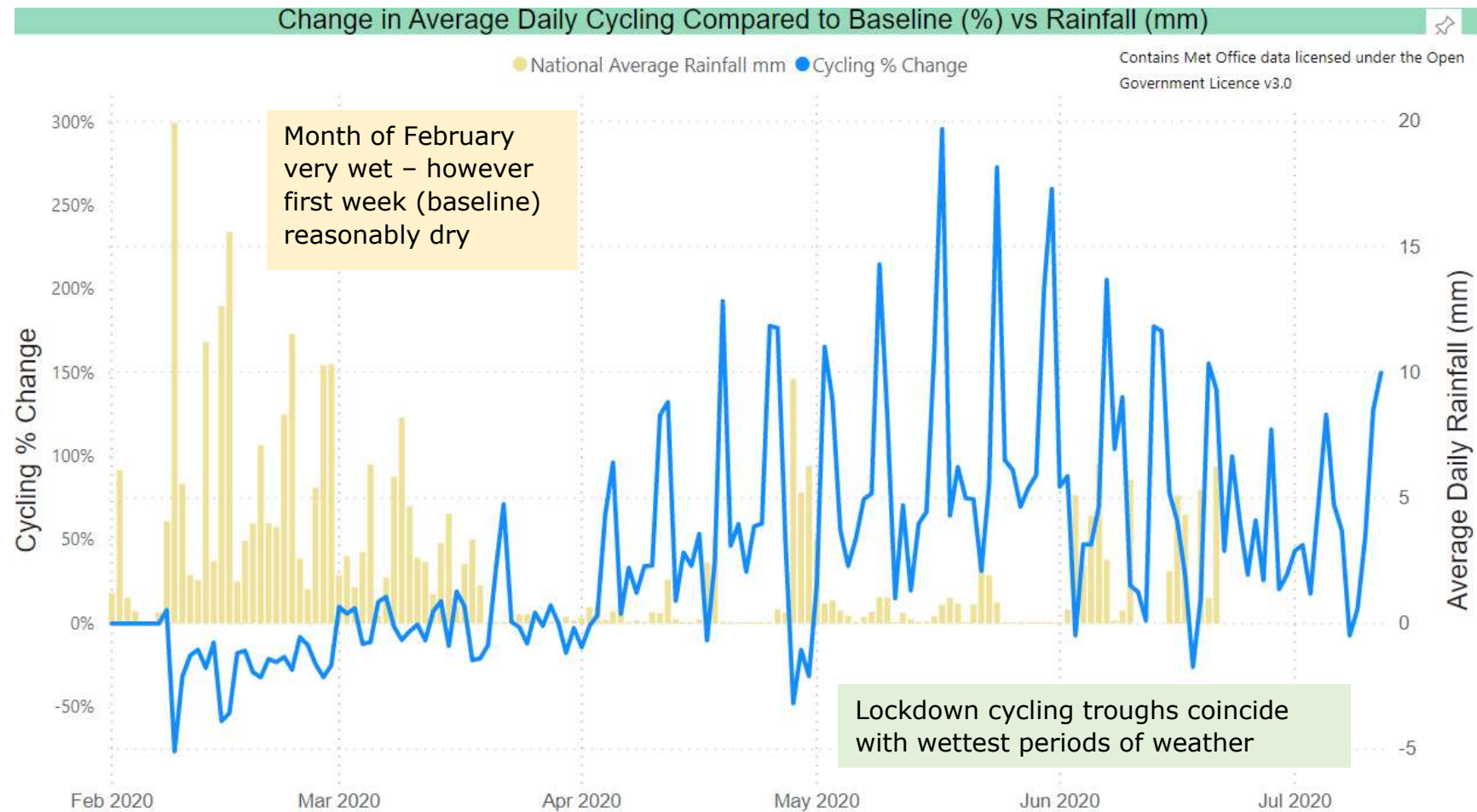


Figure 7: Change in daily cycling volumes compared to average national rainfall (mm), Met Office data only available until the 21st June

Figure 8 – Hourly cycling comparison per week

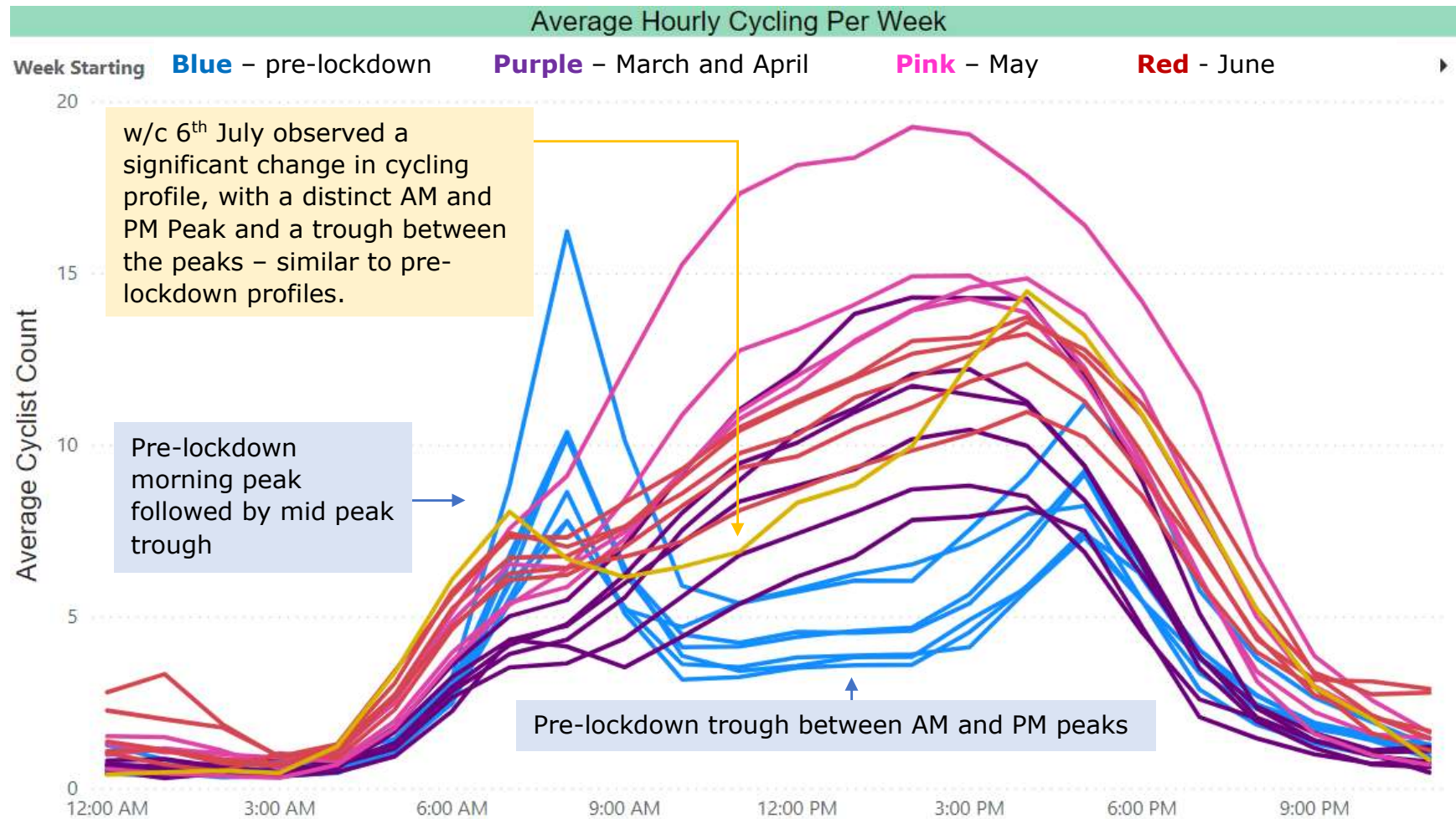


Figure 8: Change in average (mean) hourly cycling volumes per week since 1st full week of February across all sources

Data Method

The following provides some detail behind how the data has been analysed:

- The baseline has been defined as the first week of February 2020 (1st February – 7th February) for the following reasons:
 - This is consistent with national reporting.
 - Not all data sources can provide baseline data from previous years.
 - The first week of February is considered a normal working week unaffected by poor weather and half term dates later in February.
- Each day of the week has its own baseline.
- Only those datasets for which data was available for the first week of February have been included in the baseline comparison outputs.
- Baseline comparisons at aggregated Local Authority District level have only been calculated using traffic/cycling sensors that contributed to the baseline to reduce the impact of new sensors being added to data sources
- Average daily traffic volumes have been used to minimise the impact of individual sensors changing between active and inactive states.
- Averages have been calculated using the median (50th percentile) to reduce the impact of outliers (with the exception of Figure 8 which is a mean average)

Please note that as we add new datasets, enhance validation of those we've received and refine the underlying methodology, the overall values may change, however we expect the trends to remain the same.

Coming Soon

The Transport Technology Forum is now looking at how these datasets can be collated in the long term as a national data asset to be used following the pandemic. We hope very soon to open up the data sets so authorities can compare their own data with others and the national picture online. Please let us know if you have any thoughts about this, or if you do not want your data being made available in this way.

If you have traffic flow data that you can provide on a daily basis at an hourly aggregation and would like to contribute, please see the contact section for details of how to get in touch.

News from local authorities

Introduction

Each week in this digest we will share best practice amongst local authorities. Ideas and implementations promoted by authorities are included to give readers inspiration about policy they could use in their respective areas. This includes new initiatives and the publicity of existing plans and policies with specific relevance to today's challenges. The authors encourage all authorities to share a brief summary of what they are doing in their respective areas. This could simply be a link to a tweet, press release or other online post – it need not be onerous on officials' already busy workload. See "contact us" below for details.

This week we highlight how authorities are changing enforcement to reinforce sustainable mobility initiatives, supporting more take-up and surveying residents to ensure public support, plus taking an academic route to improved air quality.

HULL

Cyclists in Hull to benefit from increased bus lane enforcement



Bus lanes in Hull will be enforced from 7am to 6.30pm from Monday 13 July in a bid to make cyclists feel safer.

The move comes as part of Hull City Council's plans to overhaul its cycling infrastructure and encourage more people to choose an active form of travel.

<https://www.hulccnews.co.uk/03/07/2020/cyclists-in-hull-to-benefit-from-increased-bus-lane-enforcement/>

WEST MIDLANDS

Cycle parking for organisations

TfWM is launching Cycle Parking for Organisations supported by Park That Bike to help organisations across the West Midlands by providing them with free cycle parking*. The scheme is aimed at encouraging more cycling and people to use their bikes to get around by offering to deliver free bike racks to up to 100 businesses, health establishments and community organisations.



This project is funded by Transport for West Midlands in order to keep the region moving during the COVID-19 recovery phases and beyond.

<https://www.tfwm.org.uk/development/cycling/cycle-parking-for-organisations/>

WEST YORKSHIRE

Survey underlines the need for support for public transport as West Yorkshire emerges from COVID-19 pandemic

New research for the Combined Authority shows how the impact of the COVID-19 pandemic is influencing travel choices people in West Yorkshire are making.



The Combined Authority carried out the research to understand how the pandemic has changed working and travel patterns and to start to assess the longer-term trends that will influence planning on the transport network.

The survey saw 700 residents comprising a representative sample of West Yorkshire's communities interviewed over the telephone. The process will be repeated in the coming weeks to track how the results change as lockdown restrictions are lifted.

<https://www.westyorks-ca.gov.uk/all-news-and-blogs/survey-underlines-need-for-support-for-public-transport-as-west-yorkshire-emerges-from-covid-19-pandemic/>

MALDON

Improving Air Quality in Maldon - Air Quality Action Plan Adopted

Developing a Transport Strategy for Maldon and implementing a voluntary Clean Air Zone are just some of the actions proposed by Maldon District Council as part of an ambitious five-year plan to improve air quality in the town. The Air Quality Action Plan 2020-2025 was approved by Councillors at a meeting on 2 July 2020.



The Council is currently meeting all the National Air Quality Strategy objectives, other than that for Nitrogen Dioxide in one area of the District – Market Hill in Maldon. Objectives for Particulate Matter are being met throughout the District, but this is still a priority as any level is a concern. It is therefore important that air quality issues are addressed, and the plan sets out how this can be done.

The report sets out a number of initiatives to improve air quality. These include cleaner transport, smart delivery bays, and clean air walking and cycling routes. Raising public awareness of health issues will also be key.

https://www.maldon.gov.uk/news/article/6520/improving_air_quality_in_maldon_-_air_quality_action_plan_adopted

PORTSMOUTH

Portsmouth's Clean Air Zone consultation launches 15 July

Portsmouth has a problem with air pollution in certain areas of the city, despite the temporary reduction in traffic volumes and lower air pollution levels during lockdown.



The government still require the introduction of a charging Clean Air Zone in Portsmouth by the end of 2021 to address the problem.

Portsmouth City Council is launching the charging Clean Air Zone consultation on 15 July 2020 to seek views on how the zone will operate. The government has issued ministerial directions to a growing number of cities in the UK requiring them to create Clean Air Zones as they believe this will achieve cleaner air in the fastest possible time.

<https://www.portsmouth.gov.uk/ext/news/portsmouths-clean-air-zone-consultation-launches-15-july>

OXFORD

Air and noise quality study will help inform Oxford City's future environmental policy approach

Researchers at the University of Birmingham and University of Oxford have secured £207,000 funding from the Natural Environment Research Council to investigate the impacts of COVID-19 related public health measures upon air and noise quality in Oxford.



The new 'OxAria' study started on 1st July, extending an existing collaboration which has enabled five low-cost air pollution sensors to be installed at city centre locations, generating real-time information on key air pollutants, including Nitrogen Oxides (NO, NO₂), Carbon Monoxide (CO), Ozone (O₃) and Particulate Matter (PM₁, PM_{2.5}, PM₁₀); known to be a risk to human health.

<https://www.birmingham.ac.uk/news/latest/2020/07/air-and-noise-quality-study-oxford.aspx>

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Covid-19 Timeline

FEBRUARY 2020	
04/02/2020	China Advice - All UK citizens advised to leave China
MARCH 2020	
10/03/2020	Italy Air Travel - Majority of flights to and from Italy suspended
12/03/2020	7-day Isolation - 7-day self-isolation for individuals presenting symptoms
16/03/2020	Social Distancing - Households to self-isolate for 14-days if symptoms present. Work from home where possible. Avoid pubs, clubs, theatres etc. 12-week isolation for elderly and vulnerable (commencing end of week)
17/03/2020	UK Foreign Travel 1 - Foreign Secretary advises against all non-essential travel overseas
21/03/2020	Schools Closed - Schools to remain closed until further notice (exception for key workers)
23/03/2020	UK Lockdown - Guidance provided for essential travel only. All non-essential businesses required to close. Public events banned
23/03/2020	UK Foreign Travel 2 - Foreign Secretary advises all British travellers to return to the UK
28/03/2020	PM's Letter - Prime Minister issues guidance letter to all UK households
APRIL 2020	
16/04/2020	NPCC Guidance - NPCC issues guidance clarifying reasonable excuses for leaving home
MAY 2020	
10/05/2020	Those who cannot work from home are encouraged to return to work. Avoid public transport where possible and instead walk or cycle.
11/05/2020	Relaxation Document - The UK government publishes a 50-page document setting out further details of the phases for lifting the lockdown restrictions.
13/05/2020	Individuals can undertake unlimited exercise (and can travel to do so). Individuals can meet someone from another household providing it is on a one-to-one basis. All garden centres are allowed to open. House moves and viewings are now permitted.
18/05/2020	Rail Operators - Rail operators begin running more train services.
JUNE 2020	
01/06/2020	Schools re-open for some pupils. Groups of up to six people from different households allowed to meet outside
15/06/2020	All non-essential retailers and zoos in England reopened
19/06/2020	UK's COVID-19 Alert Level is lowered from Level 4 (severe risk, high transmission) to Level 3 (substantial risk, general circulation)
JULY 2020	
04/07/2020	Further relaxation of social distancing and reopening of pubs, restaurants, hotels and hairdressers on 4 th July

Contact us

All authorities are encouraged to share best practice for inclusion in this report. Authorities not yet contributing but who still have, in particular, cycling data to share are encouraged to do so.

Please contact info@tff.uk.net

Thank you to...

All local authorities and their consultancies and contractors who have shared data with the Transport Technology Forum to enable this report to be collated, and those in the wider industry who also provided data directly. The TTF, which is sponsored by the Department for Transport and Innovate UK is grateful to ITS (UK) and its members for their swift support in recruiting Local Authorities to participate.

This report provides regularly updated intelligence and findings from the Transport Technology Forum Covid-19 Local Authority Travel Data Project. This project is collecting and analysing traffic and travel data from local highway authorities across England to present a national picture of travel patterns and behaviour, and local authority responses to the Covid-19 crisis.